FUJITSU

Plasmavision™
PDS4233W/E-H
PDS4234W/E-S

SERVICE MANUAL

FUJITSU GENERAL Proprietary

FUJITSU GENERAL LIMITED

CONTENTS

IMPORTANT INFORMATION

WARNING :   TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK, DO NOT EXPOSE THIS
PRODUCT TO RAIN OR MOISTURE.

Please use a screen saver to prevent burning of an after-image on the screen.

Electrical energy can perform many useful functions. This unit has been engineered and manufactured to assure your personal safety. But IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK OR FIRE HAZARD. In order not to defeat the safeguards incorporated into this unit, observe the following basic rules governing its installation, use and service. Please read these "Important Safeguards" carefully before use.

Read all the safety and operating instructions before operating the unit.

Retain the safety and operating instructions for future reference.

Adhere to all warnings on the unit and in the operating instructions.

Follow all operating instructions.

Unplug the unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

Do not use attachments not recommended by the manufacturer as they may be hazardous.

Do not use the unit near water. Do not use the unit immediately after moving it from a low temperature to a high temperature environment, as this causes condensation, which may result in fire, electric shock, or other hazards.

Do not place the unit on an unstable cart, stand, or table. The unit may fall, causing serious injury to a child or adult, and serious damage to the unit. Mount the unit according to the manufacturer's instructions, using the mount recommended by the manufacturer.

When the unit is used on a cart, avoid quick stops, excessive force, and uneven surfaces which may cause the unit and cart to overturn, damaging the unit or causing possible injury to the operator.
When transporting by car, place the unit as shown in the figure.

Slots and openings in the cabinet are provided for ventilation. These ensure reliable operation and protect the unit from overheating. These openings must not be blocked or covered. (The openings should never be blocked by placing the unit on a bed, sofa, rug, or similar surface. The unit should not be placed in a built - in installation such as a bookcase or rack unless proper ventilation is provided and the manufacturer's instructions are adhered to.) For proper ventilation, separate the unit from other equipment, which may obstruct ventilation. Keep the unit at least 10cm from other equipment.

Operate only with the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult your dealer or local power company.

This unit is equipped with a three-wire plug. This plug will fit only into a grounded power outlet. If you cannot insert the plug into the outlet, have an electrician install the proper outlet. Do not defeat the safety purpose of the grounded plug.

Route power cords so that they are not likely to be walked on or pinched by items placed on or against them. Pay particular attention to cords at doors, plugs, receptacles, and where they exit from the unit.

For added protection during a lightning storm, or when the unit is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cabling. This will prevent damage to the unit by lighting and power line surges.

Do not overload wall outlets, extension cords, or convenience receptacles on other equipment as this can result in fire or electric shock.

Never push objects of any kind into this unit through openings as they may touch dangerous voltage points or short-circuit parts that could result in a fire or electric shock. Never spill liquid of any kind onto the unit.

Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltages and other hazards. Have all service done by qualified service personnel.

Unplug this unit from the wall outlet and have it serviced by qualified service personnel in the following cases:

  a) If the power supply cord or plug is damaged.
  b) If liquid has been spilled, or objects have fallen onto the unit.
  c) If the unit has been exposed to rain or water.
  d) If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the Operation Manual, as improper adjustment of controls may result in damage and will often require extensive work by a qualified technician to restore the unit to normal operation.
  e) If the unit has been dropped or damaged in any way.
     A distinct change in performance indicates that service is required.

When required, be sure the service technician uses replacement parts specified by the manufacturer or parts with the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards.

Upon completion of any service of repairs, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

Place the unit more than one foot away from heat sources such as radiators, heat registers, stoves, and other devices (including amplifiers) that produce heat.

When connecting other devices such as VCR's and personal computers, turn off the power to this unit to protect against electric shock.

Do not place combustibles such as cloth, paper, matches, aerosol cans or gas lighters that prevent special hazards when overheated behind the cooling fan.

Use only the accessory cord designed for this unit to prevent shock.

The power supply voltage rating of this unit is AC100-240V, but the attached power cord conforms to the following power supply voltage. Use only the Power Cord designated by our dealer to ensure Safety and EMC.

When used with other power supply voltages, the power cable must be changed.
Consult your local dealer.

Power Cord

| Power supply voltage : | AC 100 - 125 V | AC 200 - 240 V | AC-240V (SAA TYPE) |

SPECIFICATIONS

Power requirement 100-240V, 50/60Hz
  Current drain 3.5A

Display panel
  Screen size 92.1 (W) x 51.8 (H) [cm]
    36.3 (W) x 20.4 (H) [inch]
  Aspect ratio 16 : 9
  Number of pixels 852 (H) x 480 (V) pixels
  Pixel pitch 1.08mm x 1.08mm

  Contrast ratio PDS4233/4234 1500 : 1 (typ.)
  Brightness 700 cd/m^2 (typ.)
  Viewing angle Max. 160 degrees

Input Terminals
  Video input BNC connector
    1.0V$_{P-P}$/75Ω

  S video input S terminal
    Y signal:1.0V$_{P-P}$/75Ω
    C signal:0.286V$_{P-P}$/75Ω

  Component Three BNC terminals
  video input   Y : 1V $_{P-P}$ /75Ω
    P$_b$ /B-Y: 0.7V $_{P-P}$ /75Ω
    P$_r$ /R-Y: 0.7V $_{P-P}$ /75Ω

  RGB 1 input DVI-D terminal

  RGB 2 input mD-sub:15pin (3 row type)
    Video : 0.7V $_{P-P}$ /75Ω
    SYNC signal : TTL level

  RGB 3 input BNC terminal x 5
    R: 0.7V $_{P-P}$/75Ω
    G: 0.7V $_{P-P}$/75Ω
    B: 0.7V $_{P-P}$/75Ω
    H: TTL level or 0.3V$_{P-P}$/75Ω
    V: TTL level or 0.3V$_{P-P}$ /75Ω

  User set mode 8 memories (each RGB1,2)
  Display frequency Horizontal :15.63 to 80.0MHz
    Vertical : 50.0 to 120Hz
    Dot clock:50MHz Max
    XGA 68MHz Max

RS-232C D-sub 9 pin terminal

Color system NTSC/PAL/SECAM/N-PAL/M-PAL
/4.43NTSC/PAL60

Display colors 16.7 million (256 each for R.G.B.)

Audio input 2 pin terminals(one system)
    500mVrms/22kΩ
    Effective max. Level terminal 9W+9W (L/R), 8Ω
    output

Dimensions Width : 103.5cm (40.7 inch)
    Height: 64.0cm (25.2 inch)
    Depth : 8.5 cm (3.3 inch)

Net weight 28.5kg

Environment (Operating)
  Temperature 0° to 40℃
  Relative humidity 20 to 80%
  Pressure 720 to 1,100 hPa

Accessories User's manual
    Remote controller
    Batteries (Type AA x 2)
    Power cord
    Ferrite core (2)

Options
  Stand P-42TT33
  Wall mounting unit

    P-42WB12 installation angle
    Horizontal 0° to 15°
    Vertical 0° to 5°
  Ceiling mounting unit P-42CT11 installation angle
    Available 0° to 15°

Standards

	PDS4233W/E-H	PDS4234W/E-S
● UL,CSA		
Safety:	UL1950	UL1950
	CSA C22.2 No.950	CSA C22.2 No.950
EMC:	FCC Part15 Class A	FCC Part15 Class B
	ICES-003 Class A	ICES-003 Class B
● CE		
Safety:	EN60950 1992	EN60950 1992
	A1 1993	A1 1993
	A2 1993	A2 1993
	A3 1995	A3 1995
	A4 1997	A4 1997
EMC :	EN55022 A1/A2	EN55022 A1/A2
	Class A	Class B
	EN61000-3-2, 1995	EN61000-3-2, 1995
	EN61000-3-3, 1995	EN61000-3-3, 1995
	EN55024 1998	EN55024 1998
	EN61000-4-2, 1995	EN61000-4-2, 1995
	EN61000-4-3, 1996	EN61000-4-3, 1996
	EN61000-4-4, 1995	EN61000-4-4, 1995
	EN61000-4-5, 1995	EN61000-4-5, 1995
	EN61000-4-6, 1996	EN61000-4-6, 1996
	EN61000-4-8, 1993	EN61000-4-8, 1993
	EN61000-4-11,1994	EN61000-4-11, 1994
● AS		
Safety :	IEC950 A1/A2/A3/A4	IEC950 A1/A2/A3/A4
EMC :	AS/NZS 3548	AS/NZS 3548

SETTING SIGNALS

This display can store parameter settings for eight additional signals for RGB.
To do this, select the desired signal and follow "RGB MODE ADJUSTMENT" in the manual to adjust the parameters.
When you finish, the settings will be automatically stored.

FACTORY SET SIGNALS (RGB MODE)

Main corresponding signals (RGB mode)

Display (dots x lines)	Horizontal frequency (kHz)	Vertical frequency (Hz)	Signal
640 x 480	31.47	59.94	VGA
640 x 480	37.86	72.81	VGA 72 Hz
640 x 480	37.50	75.00	VGA 75 Hz
640 x 480	43.27	85.01	VGA 85 Hz
720 x 400	31.47	70.09	400 lines
800 x 600	37.88	60.32	SVGA 60 Hz
800 x 600	48.08	72.19	SVGA 72 Hz
800 x 600	46.88	75.00	SVGA 75 Hz
800 x 600	53.67	85.06	SVGA 85 Hz
1024 x 768	48.36	60.00	XGA 60 Hz
1024 x 768	56.48	70.07	XGA 70 Hz
1024 x 768	60.02	75.03	XGA 75 Hz
1280 x 1024	63.98	60.02	SXGA 60 Hz
1280 x 1024	79.98	75.03	SXGA 75 Hz
1600 x 1200	75.00	60.00	UXGA 60 Hz
640 x 480	35.00	66.67	MAC 13RGB
848 x 480	31.02	60.00	
852 x 480	31.72	59.97	
720 x 485	15.73	59.94	60 fields
720 x 575	15.63	50.00	50 fields
640 x 400	31.50	70.15	NEC 31 kHz

* With some input signals, "Out of range" may appear even when the horizontal and vertical frequencies are within their permissible ranges. Make
 sure that the vertical frequency of the input signal is 85 Hz or less for SVGA, 75 Hz or less for XVGA/ SXGA , 60 Hz or less for UXGA.

FACTORY SET SIGNALS (Component video mode)

Horizontal frequency (kHz)	Vertical frequency (Hz)	Signal
15.73	59.94	SDTV 480i
15.63	50.00	SDTV 576i
31.47	59.94	SDTV 480p
31.25	50.00	SDTV 576p
45.00	60.00	HDTV 720p
37.50	50.00	HDTV 720p
33.75	60.00	HDTV 1,080i
28.13	50.00	HDTV 1,080i

FACTORY SET SIGNALS (Video, S-video mode)

Horizontal frequency (kHz)	Vertical frequency (Hz)	Signal
15.73	59.94	NTSC
15.63	50.00	PAL
15.63	50.00	SECAM
15.63	59.52	PAL 60
15.63	50.00	N-PAL
15.73	59.95	M-PAL
15.73	59.94	4.43 NTSC

• The dedicated graphics card is optional.
• In the 800 x 600 and 1,024 x 768 modes, images of reduced size are displayed on the screen, using size reduction and interpolation. Also note that on-screen information is also displayed in reduced size.
• " Out of range" appears if the display receives a signal whose characteristic does not fall within the display's permissible range.
• You can check the input signals with "Information" on the OTHERS Menu screen.

RGB INPUT TERMINAL
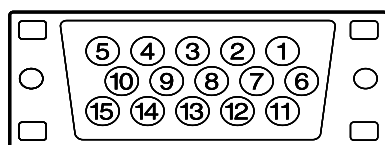
∗ The sync switch (TTL/ANALOG switch) is on the rear of the 13-pin horizontal sync and 14-pin vertical sync terminals.

Pin No.	Input signal	Pin No.	Input signal
1	Red	9	
2	Green	10	Ground
3	Blue	11	
4		12	
5	Ground	13	Horiz. sync
6	Ground	14	Vert. sync
7	Ground	15	
8	Ground	Outer side	Ground

RS-232C INPUT TERMINAL
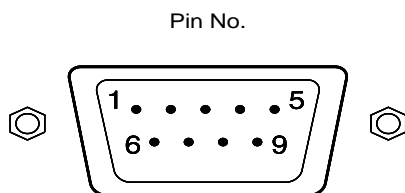
Pin No.

Pin No.	No. signal
1	DCD (Data Carrier Detect)
2	RD (Receive Data)
3	TD (Transmit Data)
4	DTR (Data Terminal Ready)
5	GND (Ground)
6	DSR (Data Set Ready)
7	RTS (Request To Send)
8	CTS (Clear To Send)
9	RI (Ring Indication)

DVI-D INPUT TERMINAL
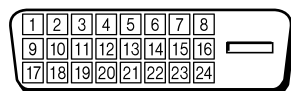
Pin No.	Signal	Pin No.	Signal	Pin No.	Signal
1	T.M.D.S. Data2−	9	T.M.D.S. Data1−	17	T.M.D.S. Data0−
2	T.M.D.S. Data2＋	10	T.M.D.S. Data1＋	18	T.M.D.S. Data0＋
3	T.M.D.S. Data2 Shield	11	T.M.D.S. Data1 Shield	19	T.M.D.S. Data0 Shield
4	—	12	—	20	
5	—	13	—	21	—
6	DDC Clock	14	＋5V Power	22	T.M.D.S. Clock Shield
7	DDC Data	15	Ground(for ＋5V)	23	T.M.D.S. Clock＋
8	—	16	Hot Plug Detect	24	T.M.D.S. Clock−

CONNECTION

POWER INPUT

COMPONEN VIDEO INPUT (color difference input) / RGB3 INPUT

RGB 2 INPUT (mD-sub)

RGB 1 INPUT (DVI-D)

RS-232C

S-VIDEO INPUT

VIDEO INPUT

AUDIO 2 INPUT

AUDIO 1 INPUT

To receptacle

To color difference output terminal / To display (analog RGB) output terminal

To display (analog RGB) output terminal

To display (digital RGB) output terminal

To RS-232C output terminal

To S-video output terminal

To video output terminal

To sound output terminal

To sound output terminal

Connection to AV equipment
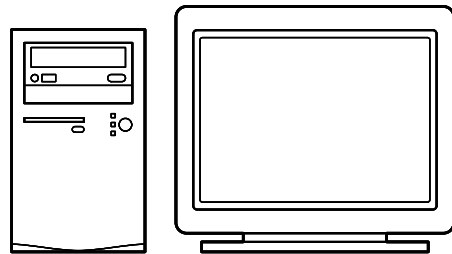
Connection to PC

PART NAMES AND FUNCTIONS

Front

ON   (GRN)
STD-BY   (RED)
NO-SIGNAL   (ORG)

(bottom)

Control Panel (bottom)

POWER   MODE   WIDE   MENU   ◀▼▲▶   ENTER

I/⏻

③ ④ ⑤ ⑥ ⑦ ⑧⑨ ⑩
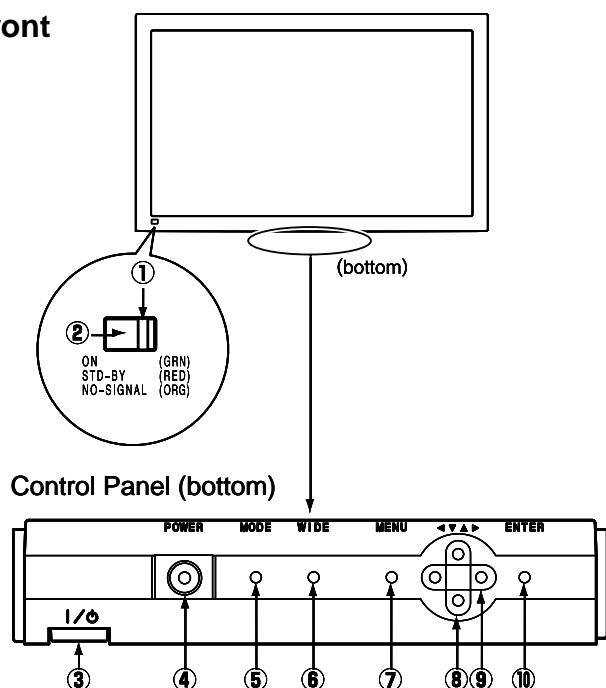
① **Power indicator lamp**
This lamp shows the state of the power supply.

    Lit (red) : Stand-by
    Lit (green) : Power ON
    Lit (orange) : Power saving (DPMS: Power saving function) mode ON
    Flashing (red) : Malfunction (Flashes differently depending on the type of malfunction.)

② **Remote control signal receiver**
Receives signals from the remote control.

③ **Main power switch**
When pressed, power indicator lamp ① lights red, and the power can be turned on or off by the remote controller. When this switch is pressed again, the power is cut and power indicator lamp ① goes off.

④ **Power button [POWER]**
Turns the power ON or OFF.

⑤ **Input mode selector button [MODE]**
Switches between picture input modes.

⑥ **Wide screen selector button [WIDE]**
Switches the screen over to a desired wide screen.

⑦ **Menu button [MENU]**
Displays picture adjustment menus.

⑧ **Adjustment buttons [▼/▲]**
Adjust the volume.
The [▼/▲] buttons can also be used to scroll through the options when a menu is displayed.

⑨ **Adjustment buttons [◀/▶]**
The **[◀/▶]** buttons can also be used to scroll through options in a menu, or to change values.

⑩ **Set button [ENTER]**
Press this button to finalize the selection of a desired option in a menu.

Remote control
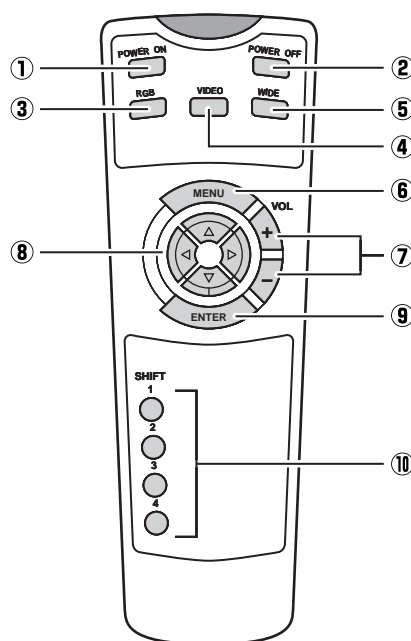
① **Power ON button [POWER ON]**
Turns the power ON.

② **Power OFF button [POWER OFF]**
Turns the power OFF.

③ **RGB input mode selector button [RGB]**
Switches between RGB input modes.

④ **Video input mode selector button [VIDEO]**
Switches between video input modes.

⑤ **Wide screen selector button [WIDE]**
Switches the screen over to a desired wide screen.

⑥ **Menu button [MENU]**
Use this button to display a desired menu for adjusting the picture.

⑦ **Volume adjustment buttons [VOL +/-]**
Adjust the volume.
    Press the + button to increase the volume.
    Press the - button to reduce the volume.

⑧ **Adjustment buttons [◀/▶/▼/▲]**
Use these buttons to scroll through options in a menu and change values.

⑨ **Enter button [ENTER]**
Press this button to finalize the selection of a desired menu or option within a menu.

⑩ **Display selector buttons [SHIFT 1-4]**
When you use two or more displays, you can use these buttons to control up to four displays by assigning an unique number to each display.

Bottom
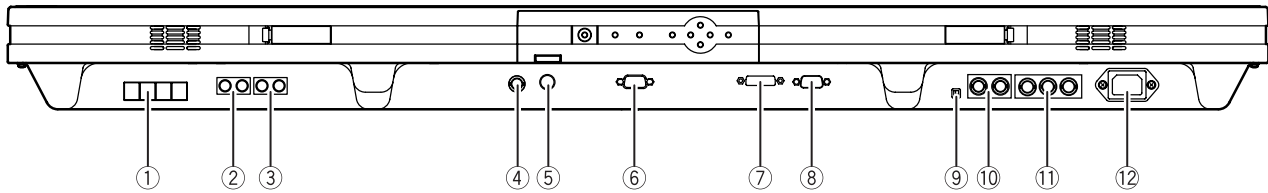
① **External speaker output terminal (EXT SP)**
Connect this terminal to the optionally available speaker. (Use a speaker with 4 to 16Ω.)
∗ See the speaker instruction manual for more information.

② **Sound 1 input terminal (AUDIO 1 INPUT)**
Connect this terminal to the sound output terminal of your VCR, etc.

③ **Sound 2 input terminal (AUDIO 2 INPUT)**
Connect this terminal to the sound output terminal of your VCR, etc.

④ **Video input terminal (VIDEO INPUT)**
Connect this terminal to the video output terminal of your VCR or video disk player.

⑤ **S-video input terminal (S-VIDEO INPUT)**
Connect this terminal to the S-video output terminal of your VCR or video disk player.

⑥ **RS-232C terminal (RS-232C)**
This terminal is provided for you to control the display from the PC. Connect it to the RS-232C terminal on the PC.
When connecting a cable, attach a ferrite core to the cable.

⑦ **RGB 1 input terminal (RGB 1 INPUT/DVI-D)**
Connect this terminal to the PC's display (digital RGB) output terminal or decoder (digital broadcast tuner, etc.) output terminal.
∗ The connection cable No.88741-8000 made by **molex Inc.** is recommended.

⑧ **RGB 2 input terminal (RGB 2 INPUT/mD-sub)**
Connect this terminal to the PC's display (analog RGB) output terminal or decoder (digital broadcast tuner, etc.) output terminal.

⑨ **RGB 3 synchronization switch (SYNC SW TTL/ANALOG (75Ω))**
This switch is used to terminate horizontal (H) terminal and vertical (V) terminal, out of RGB3 input terminals, with 75Ω.

        TTL   : Used when sending RGB signals from the PC to the RGB terminal

        ANALOG (75Ω) : Used when sending analog synchronization signals to the RGB terminal

⑩ + ⑪ **RGB 3 input terminal (RGB 3 INPUT/BNC)**
Connect this terminal to the PC's display (analog RGB)output terminal or decoder (digital broadcast tuner,etc.) output terminal.
∗ When RGB3 input terminal is connected, Comp.video mode is not available.

⑪ **Component video input terminal (COMPONENT VIDEO INPUT)**
Connect this terminal to the component video output (color difference output) terminal of your HDTV unit or DVD player.
∗ When Comp.video input terminal is connected, RGB3 mode is not available.

⑫ **Power input terminal**
Connect this terminal to the power cable supplied with the display.
∗ When connecting a cable, attach a ferrite core to the cable.

VIDEO MODE ADJUSTMENT

REMOTE CONTROLLER

- POWER ON
- POWER OFF
- RGB
  - RGB 1
  - RGB 2
  - RGB 3
- VIDEO
  - Video
  - S-Video
  - Comp. Video
- WIDE
  - Normal
  - Auto
  - Wide 1
  - Wide 2
  - Zoom 1
  - Zoom 2
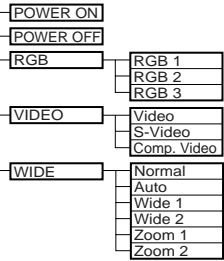
Normal
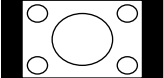
Wide 1
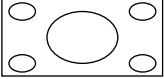
Wide 2
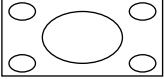
Zoom1
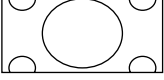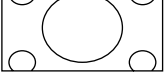
Zoom2

POSITION/SIZE

Position
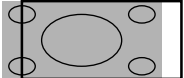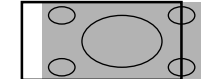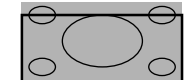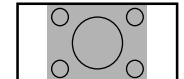
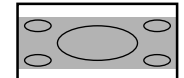Horizontal "-"

Horizontal "+"

Vertical "-"

Vertical "+"

Size

Width "-"

Width "+"
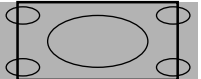
Height "-"

Height "+"
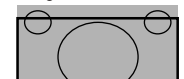
MENU
ENTER

PICTURE
- Contrast — {-30 to +30}
- Brightness — {-60 to +60}
- Color — {-60 to +60}
- Tint — {-30 to +30 (Comp. Video -60 to +60)}
- Sharpness — {-4 to +4 (Decoder -16 to +16)}
- Picture Mode
  - Dynamic
  - Fine
  - Real 1
  - Real 2
  - Static
- Color Temp.
  - Standard
  - Cool
  - User
  - Warm
- User Color Temp.
  - Red — {0 to 255}
  - Green — {0 to 255}
  - Blue — {0 to 255}
- Noise Reduction
  - Std
  - Max
  - Off
  - Min

POSITION/SIZE
- Position
  - Horizontal — {-30 to +30 (Comp. Video -16 to +16)}
  - Vertical — {-7 to +7 (Zoom : -15 to +15) (Comp. Video -16 to +16)}
- Size
  - Width — {-7 to +7 (Comp. Video -4 to +4)}
  - Height — {-7 to +7 (Comp. Video -4 to +4)}

AUDIO
- Treble — {-6 to +6}
- Bass — {-6 to +6}
- Balance — {-10 to +10}

FEATURES
- Adjustment — Clamp Position — {-8 to +8} *Only Comp. Video
- Function
  - 24 Frame model
    - On
    - Off
  - 3D Y/C
    - On
    - Off
- On Screen Menu
  - OSD
    - On
    - Off
  - OSD Rotate
    - Normal
    - +90 Deg.
    - -90 Deg.
  - Language
    - English
    - Deutsch
    - Espanol
    - Francais
    - Italiano
    - Portugues
    - Русский   *Only E-model
- Input Terminal
  - Video Input
    - Auto
    - NTSC
    - PAL
    - SECAM
    - PAL 60
    - N-PAL
    - M-PAL
    - 4.43 NTSC
  - S-Video Input
    - Auto
    - NTSC
    - PAL
    - SECAM
    - PAL 60
    - N-PAL
    - M-PAL
    - 4.43 NTSC
  - BNC Input
    - RGB PC
    - Decoder
    - Comp. video — Mask
      - Off
      - 5
      - 10
      - 15
  - D-Sub Input — Function
    - RGB PC
    - Decoder — Mask
      - Off
      - 5
      - 10
      - 15
- Others
  - DPMS
    - Time
      - Off
      - 1 min
      - 15 min
      - 45 min
      - 60 min
    - Background
      - Black
      - White
  - Audio Input
    - No Audio
    - Audio 1
    - Audio 2
  - Input Priority
    - Off
    - RGB2
    - RGB3
    - Video
    - S-Video
    - Comp. Video
  - Monitor No.
    - 0
    - 1
    - 2
    - 3
    - 4
  - White Screen
    - Off
    - On
  - Exhibition Mode
    - Off
    - On
  - Installation
    - Horizontal
    - Vertical
  - Key Lock
    - Off
    - On
  - Information
    - Mode
    - Monitor No.
    - Freq. Scan Mode
    - Input Signal
    - Freq.

FACTORY DEFAULT — Execute
- Yes
- No

Mask Off

Mask 5

Mask 10

Mask 15

RGB MODE ADJUSTMENT

REMOTE CONTROLLER

- POWER ON
- POWER OFF
- RGB
  - RGB 1
  - RGB 2
  - RGB 3
- VIDEO
  - Video
  - S-Video
  - Comp. Video
- WIDE
  - Normal
  - Wide
  - Zoom

Normal

Wide

Zoom

POSITION/SIZE

Position

Horizontal "-"

Horizontal "+"

Vertical "-"

Vertical "+"

Size

Width "-"

Width "+"

Height "-"

Height "+"

MENU / ENTER

PICTURE

Contrast	{-30 to +30}
Brightness	{-60 to +60}
Color	{-60 to +60}
Tint	{-60 to +60}
Sharpness	{-4 to +4 (Decoder -16 to +16)}

Picture Mode
- Dynamic
- Fine
- Real 1
- Real 2
- Static

Color Temp.
- Standard
- Cool
- User
- Warm

User Color Temp.
- Red {0 to 255}
- Green {0 to 255}
- Blue {0 to 255}

POSITION/SIZE

Position
- Horizontal {-150 to +150 (Decoder: -16 to +16) (1080I, 720P: -32 to +32)}
- Vertical {-150 to +150 (Decoder: -16 to +16) (1080I, 720P: -32 to +32)}

Size
- Width {-25 to +50 (Decoder: -4 to +4)}
- Height {-25 to +50 (Decoder: -4 to +4)}

AUDIO
- Treble {-6 to +6}
- Bass {-6 to +6}
- Balance {-10 to +10}

FEATURES

Adjustment
- Dot Clock {-60 to +60}
- Clock Phase
  - Auto
  - Manual {1 to 32}
- Vertical Sync. {-1 to +1}
- Clamp Position {-8 to +8}

On Screen Menu
- Auto Calibration — Execute — Yes / No
- OSD — On / Off
- OSD Rotate
  - Normal
  - +90 Deg.
  - -90 Deg.
- Language
  - English
  - Deutsch
  - Espanol
  - Francais
  - Italiano
  - Portugues
  - Русский   *Only E-model

Input Terminal
- Video Input
  - Auto
  - NTSC
  - PAL
  - SECAM
  - PAL 60
  - N-PAL
  - M-PAL
  - 4.43 NTSC
- S-Video Input
  - Auto
  - NTSC
  - PAL
  - SECAM
  - PAL 60
  - N-PAL
  - M-PAL
  - 4.43 NTSC
- BNC Input
  - RGB PC
  - Decoder
  - Comp. video — Mask — Off / 5 / 10 / 15
- D-Sub Input
  - Function — RGB PC
  - Decoder — Mask — Off / 5 / 10 / 15

Others
- DPMS
  - Time
    - Off
    - 1 min
    - 15 min
    - 45 min
    - 60 min
  - Background — Black / White
- Audio Input
  - No Audio
  - Audio 1
  - Audio 2
- Screen Orbiter
  - Mode/Time — Off / Time / Mode
  - Moving Area — Std / Max / Min
- Input Priority
  - Off
  - RGB2
  - RGB3
  - Video
  - S-Video
  - Comp. Video
- Monitor No.
  - 0
  - 1
  - 2
  - 3
  - 4
- Direct Setting
  - Auto
  - VGA
  - WVGA
  - 480P
  - XGA
  - WXGA
  - SXGA
  - SXGA+
- Code Setting
  - Auto
  - Manual {01 to 2A} *Hexadecimal
- White Screen — Off / On
- Exhibition Mode — Off / On
- Installation — Horizontal / Vertical
- Key Lock — Off / On
- Information
  - Mode
  - Monitor No.
  - Freq. Scan Mode
  - Input Signal
  - Freq.
  - Preset No.

FACTORY DEFAULT — Execute — Yes / No

Mask Off

Mask 5

Mask 10

Mask 15

Moving Area Std. (10 dot)

Moving Area Max. (15 dot)

Moving Area Min. (5 dot)

TROUBLESHOOTING USING LED AND OSD

1. Display

(1) OSD
Two kinds of error messages are displayed on the screen, and the power is turned off 10 sec later.

(2) LED
LED error is displayed continuously after the power is turned off.

2. Error types and check points

(1) OSD

On screen display	Cause	Check point
ERROR MESSAGE CONDITION 1	Fan protector operated	● Fan ● Main power PCB ● Main/Digital PCB
ERROR MESSAGE CONDITION 2	Temperature protector operated	● Ambient temperature of unit ● Main/Digital PCB ● Temp. sensor IC757

(2) LED

LED lamp display status	Cause	Check point
Steady light (Red)	Stand-by status	--------------------
Continuous Flashes continuously (Red)	No power Power supply protector operated	● Main power PCB ● PDP panel
1 time Flashes once every 4 sec. (Red)	Fan protector operated	● Fan ● Main power PCB ● Main/Digital PCB
2 times Flashes twice every 5 sec. (Red)	Temperature protector operated	● Ambient temperature of unit ● Temperature sensor IC757 ● Main/Digital PCB
4 times Flashes four times every 7 sec. (Red)	Main/Digital circuit faulty	● Main/Digital PCB
5 times Flashes five times every 8 sec. (Red)	Video circuit faulty	● Video PCB Assy

TROUBLESHOOTING FLOWCHART

LED lamp blinking

Note : 1. Protector operates when connector P4(CN4) is disconnected and power is turn off.

Turn power on and check state of lamp.

LAMP STATE	POWER SUPPLY STATE	REMEDY
Not lighted.	Power supply circuit faulty.	∗ Replace Power Supply PCB.
		∗ Vs and Vd must be adjusted.

RED — Blinks continuously. → Power turned off immediately. → Check 1

RED — Blinks once → Power turned off after 10 sec. → Check 2

RED — Blinks twice → Power turned off after 10 sec. → Check 3

RED — Blinks four times → Power not turned off, LED blinks only. → Replace Main/Digital PCB Assy.

RED — Blinks five times → Power not turned off, LED blinks only. → Replace Video PCB Assy.

GREEN — Lights steadily for more than 10 sec.

Is on-screen display normal? — NO → PDP panel faulty. → Replace PDP panel

YES

All input image faulty. → Signal processing PCB faulty. → Replace Main/Digital PCB Assy.

Video input image faulty. → Video PCB faulty. → Replace Video PCB Assy.

S-video input image faulty. → Video PCB faulty. → Replace Video PCB Assy.

Component video input image faulty. → Signal processing PCB faulty. → Replace Main/Digital PCB Assy.

RGB 1,2 input image faulty. → Check 4

Power supply protector operated

Power lamp: Flashing continuously in red.
(at an interval of 0.5 sec)

Start

(1) Turn the main power off and disconnect the connector P2,P3,P4,P5 and P6 on the Main Power PCB.
(2) Connect pin 1 and pin 13 of P2 through a 1/4W, 1kΩ resistor.
    Connect pin 1 of P4 and pin 9 of P6
(3) Turn the main power on again.
(4) Measure during relay turning on and off.

Is voltage at connector P5 pin 10(Vs) 160V and pin 7(Vd) 65V on Main Power PCB ?

Yes → PDP Panel faulty. → ∗ Replace PDP Panel.

∗ Vs and V_d must be adjusted.

No → Power Supply PCB. → ∗ Replace Power Supply PCB.

∗ Vs and V_d must be adjusted.

Check 2

Fan protector operated

Power lamp: Flashes once intermittently in red. (For 0.5 sec. at an interval of 3 sec.)

Start

Is voltage at connectors P951 3pin, P953 3pin and P954 3pin on Main/Digital PCB 14V?

No → Microcomputer peripheral circuit faulty. → Replace Main/Digital PCB Assy.

Yes → Fan faulty → Replace fan.
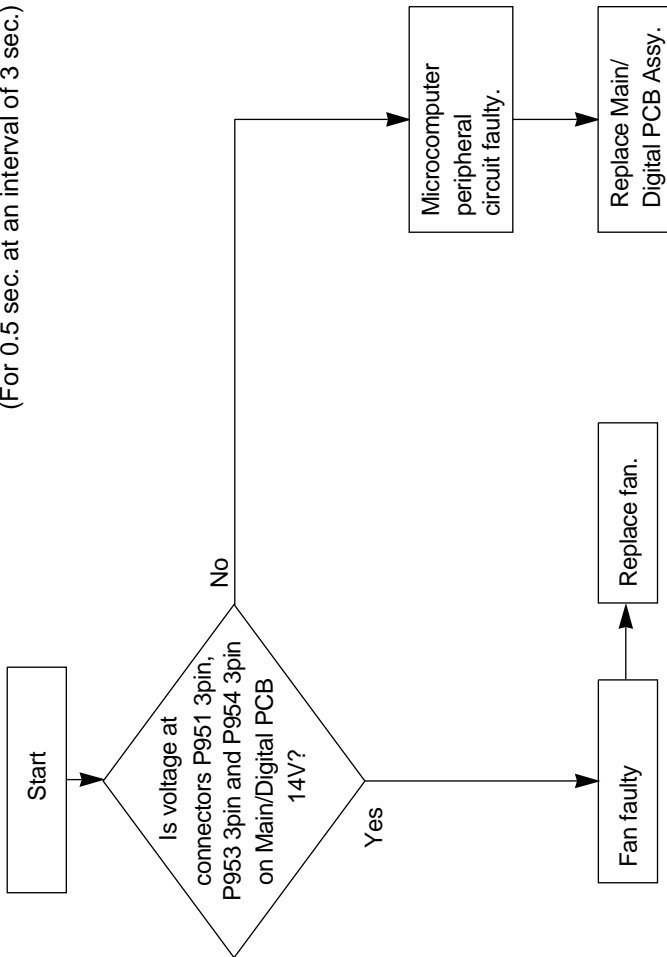
Check 3

Temperature protector operated

Power lamp : Flashes intermittently twice in red. (For 0.5 sec. at an interval of 5 sec.)

Start

Is ambient temperature of IC757 on Main/Digital PCB less than 60°C ?

No → Adjust PDP unit installation so that peripheral temperature is 40.0°C or less.

Does unit operate normally when temperature sensor IC757 changed ?

No → Microcomputer peripheral circuit faulty. → Replace Main/Digital PCB Assy.

Yes → Temperature sensor IC757 faulty. → Replace temperature sensor IC757.

Temperature sensor cooling

The temperature sensor IC757 is installed on Main/Digital PCB. Turn the power off and cool with a point cooler.

Check 4

RGB input is abnormal.

Power lamp: Lighted green (10 sec or more)

Start

Is RGB cable pin arrangement appropriate ?
No → Check connection cable.
Yes ↓

What kind of signal is output from signal source ?

Composite signal / Sync. on green signal / Separate signal

Is composite sync. signal input to pin 13 of RGB cable ?
No / Yes

Is composite sync. signal input to pin 2 of RGB cable ?
No / Yes

Check input signal.

Is horizontal sync. signal input to pin 13 and vertical sync signal input to pin 14 of RGB cable ?
No → Check input signal.
Yes ↓

Connect RGB cable to terminal.

Is Sync. switch (TLL/ANALOG) selected correctly ?
No
Yes(ANALOG)

Is Sync. signal polarity negative ?
Yes / No

Change sync.switch (TTL/ANALOG)

Make sync. signal polarity output from signal source negative, or make output impedance TTL.

Is frequency of horizontal sync. and vertical sync signals within specified range ?
No → Check input signal.
Yes ↓

Is input level(∗) within specified range ?
No → Check input signal.
Yes ↓

Signal processing circuit faulty.

Replace Main/Digital PCB Assy.

Note(∗): If the synchronizing signal cannot be identified by TTL level, it is in the 75Ω terminated state.

- 16 -

Vs AND Vd ADJUSTMENT

When the Main Power Supply PCB and PDP panel are replaced, Vs and Vd must be adjusted.

Adjustment time	Within 3 minutes after power on.
Adjustment signal	Adjust the Vs and Vd in the no-signal state.
Check points	Refer to the drawing shown below.
Adjustment points	Refer to the drawing shown below.
Adjustment value	Within +/- 0.1V of voltage indicated on the label on the PDP panel.

Vs & Vd check point
P6
1 pin Vs
2 pin Vs
4 pin Vd
5 pin GND
6 pin GND

Main Power Supply PCB (PFW-423)

RV3
Vs ADJ.

P5
C56
P6
1
9

L4

T4

L2

T3

RV4
Vd ADJ.

L1

T2
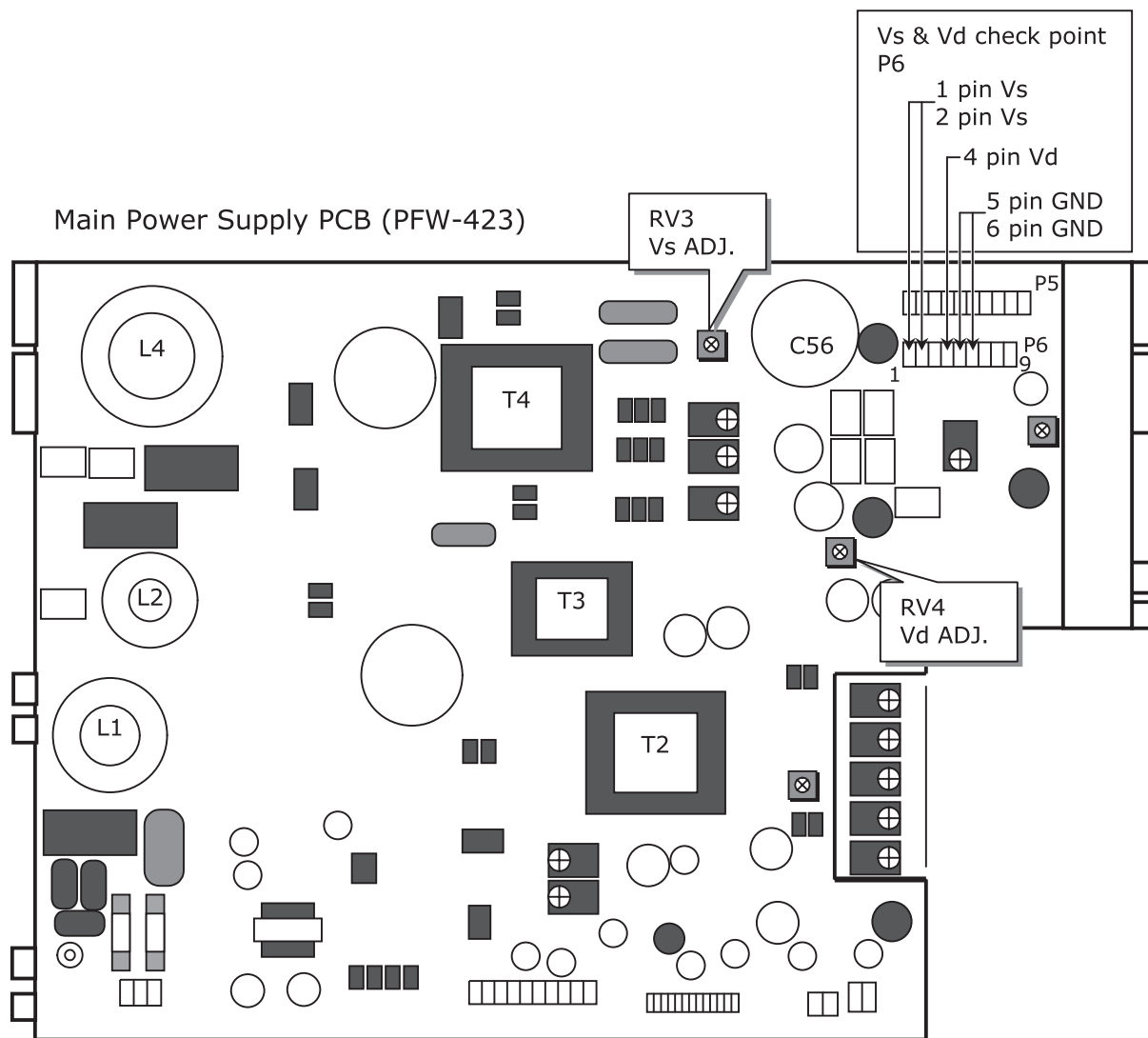
GENERAL CONNECTION DIAGRAM
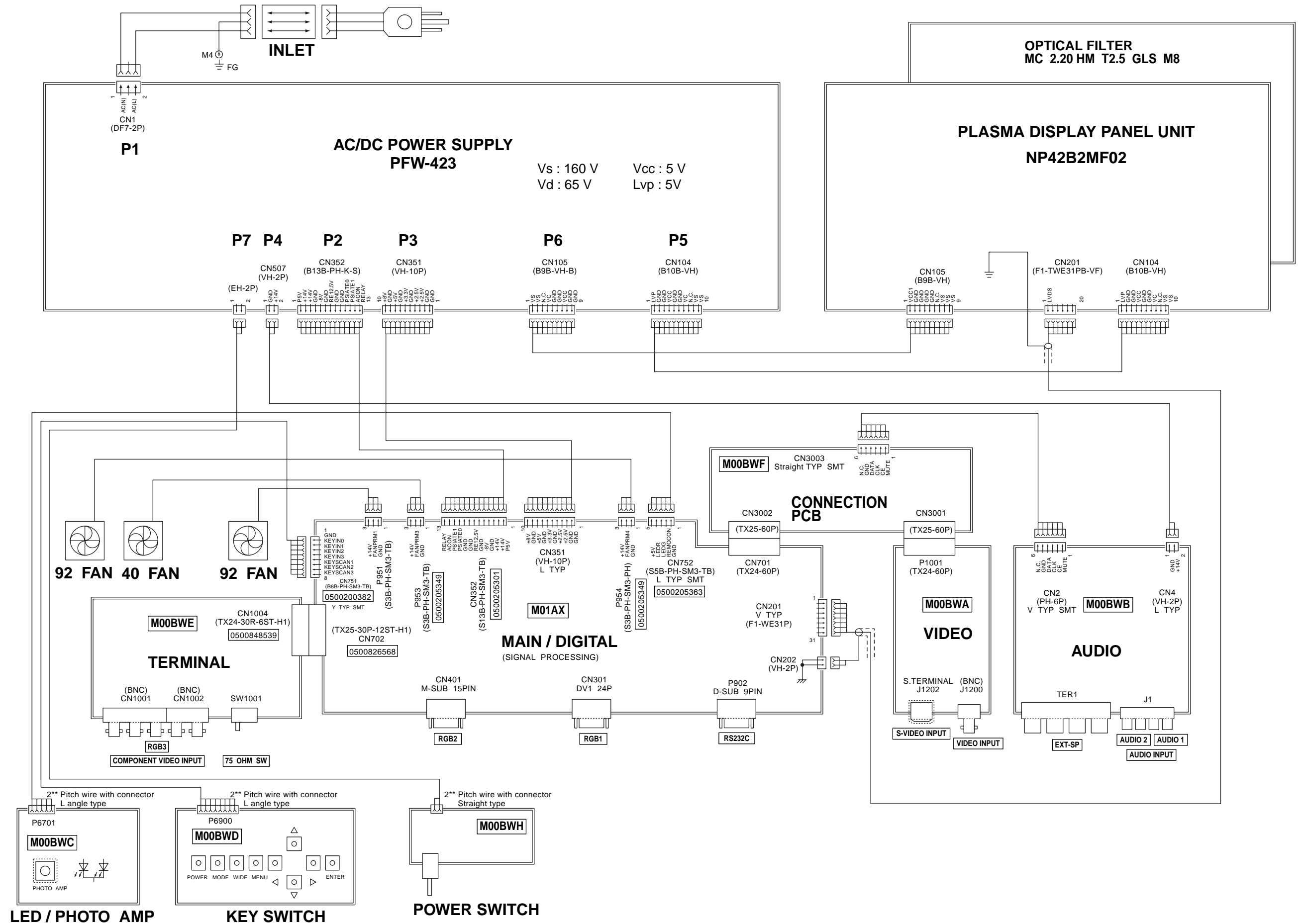
DISASSEMBLY PROCEDURES

1.Removing the Rear Case
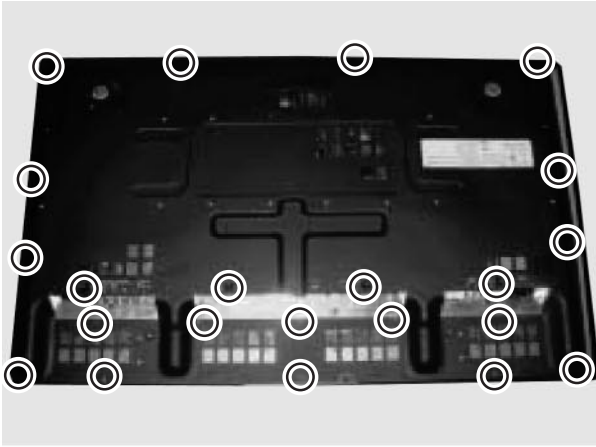
1) Remove the 22 circled screws and remove the Rear Case.
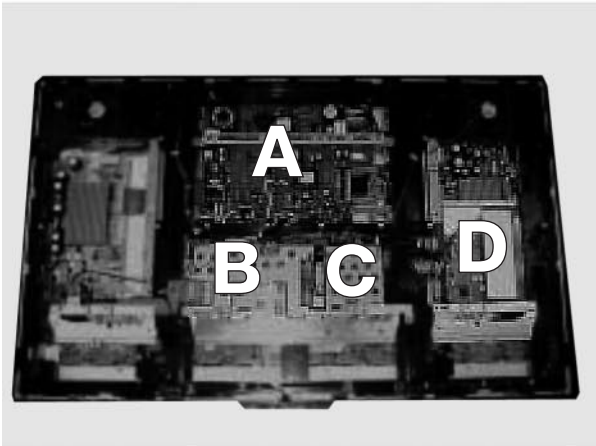
∗ Layout of Main PCB.
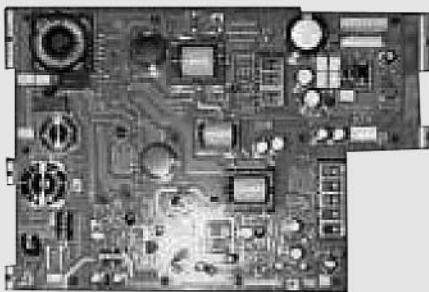
A : Main Power PCB
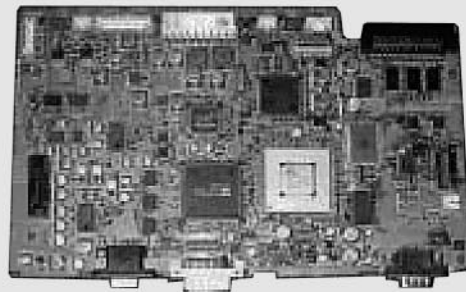
B : Main Digital PCB
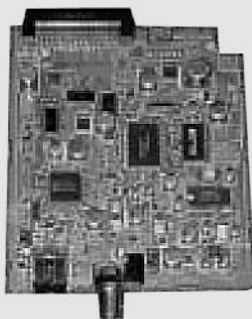
C : Video PCB

D : Audio PCB

2. Removing the Main Power PCB
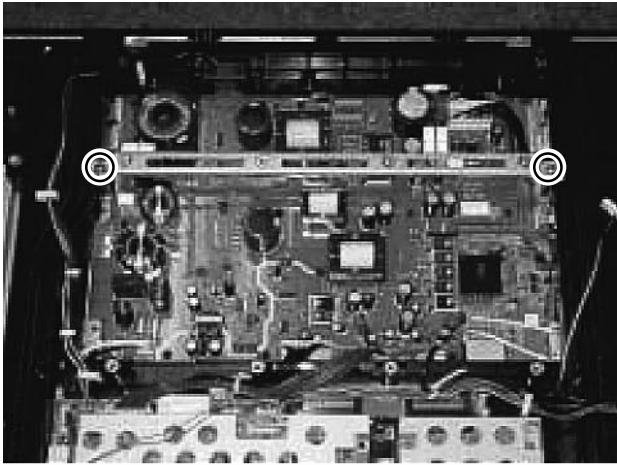
1) Remove the Rear Case.

2) Remove 2 circled screws and remove the Option Frame.
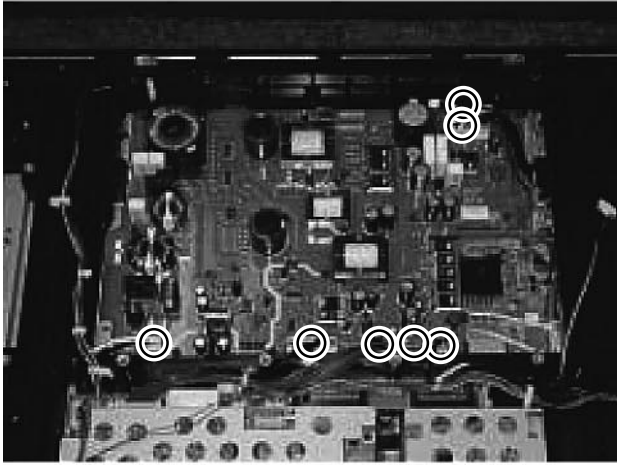
3) Disconnect the circled connector.
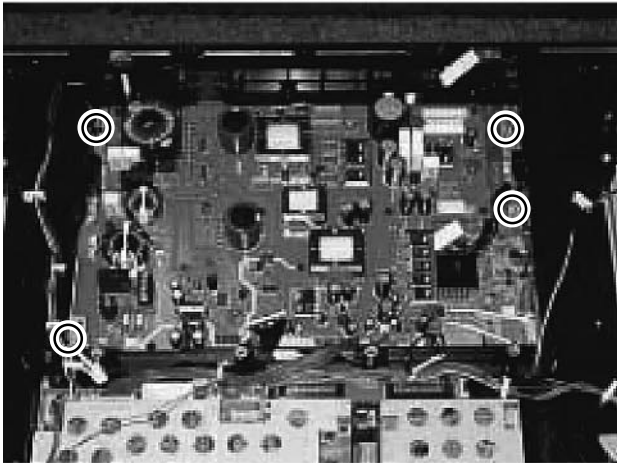
4) Remove the 4 screws and Main Power PCB.
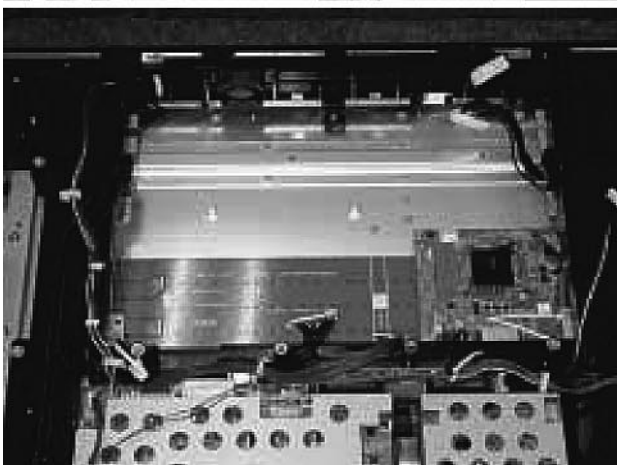
* View after Main Power PCB removed.
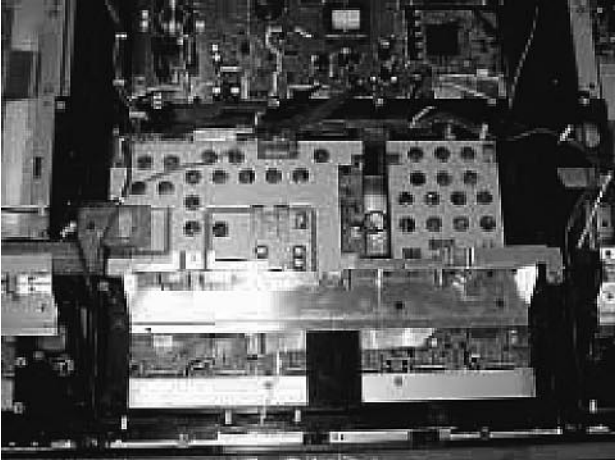
1) Remove the Rear Case.
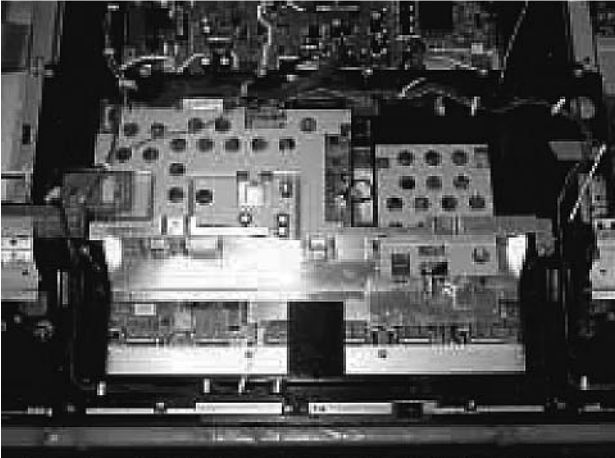
2) Remove the Video Unit.
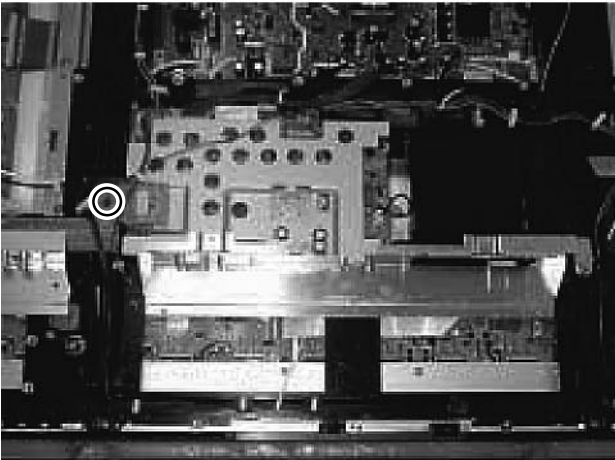
3) Remove the circled screw and remove the Interface PCB from the Main Digital PCB.

4) Disconnect the circled connector

5) Remove the Rear Panel.

6) Remove the 4 screws at the shield bracket of the Main Digital PCB, and remove the shield bracket.
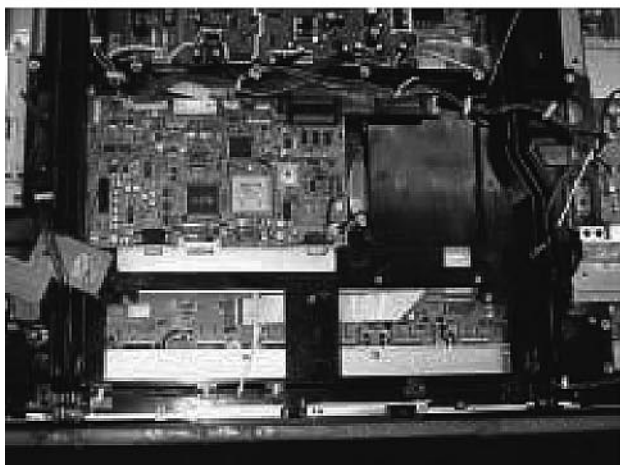
7) Remove the Main Digital PCB.
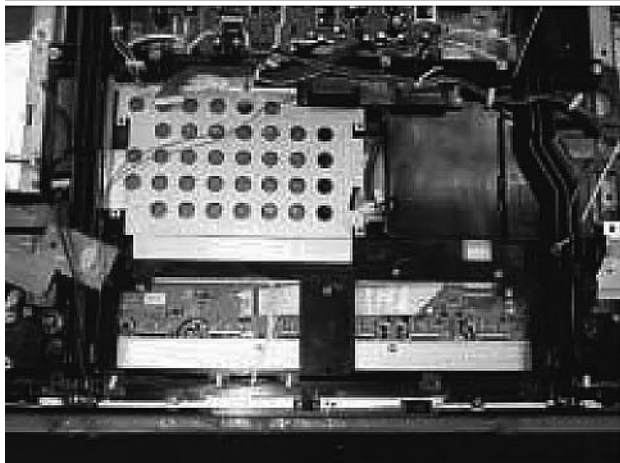
∗ View after Main Digital PCB removed.

4. Removing the Audio PCB
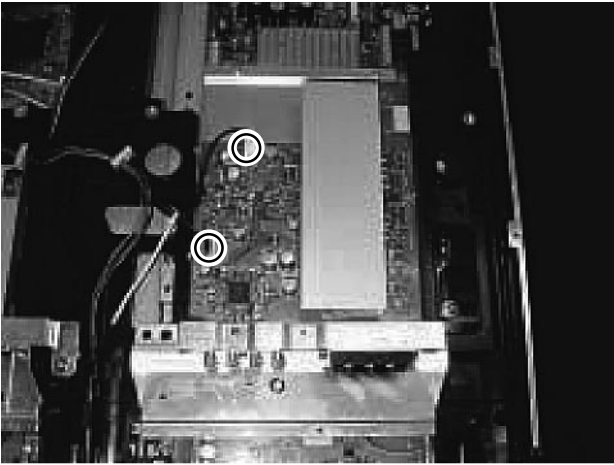
1) Remove the Rear Case.

2) Disconnect the circled connector.
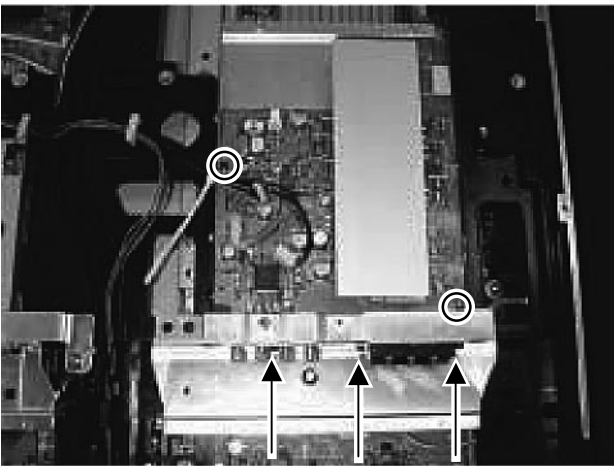
3) Remove the 5 screws.
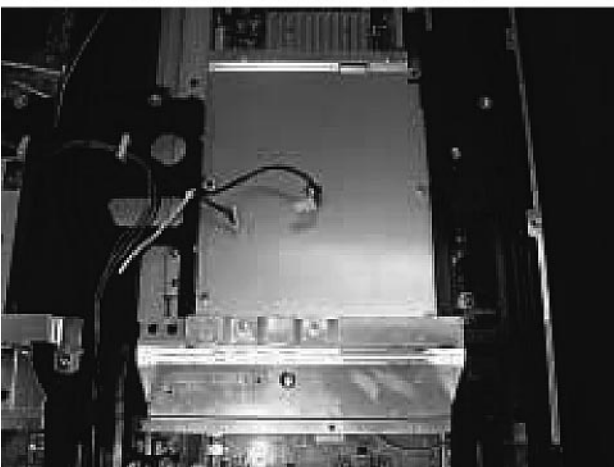
∗ View after Audio PCB removed.
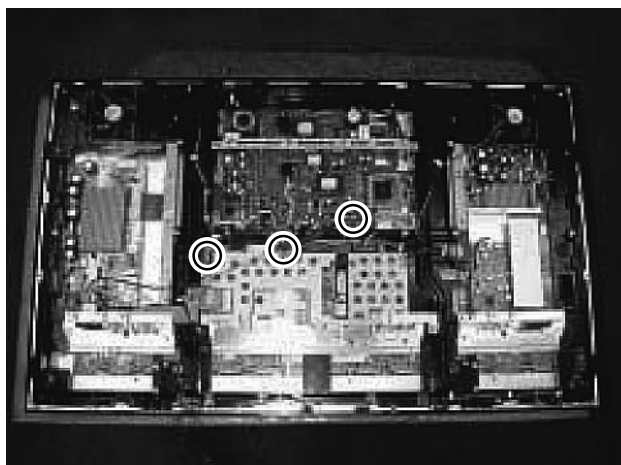
1) Remove the Rear Case.

2) Disconnect the circled connectors CN751, CN752, P7and remove their wires to the outside of the Main Unit.
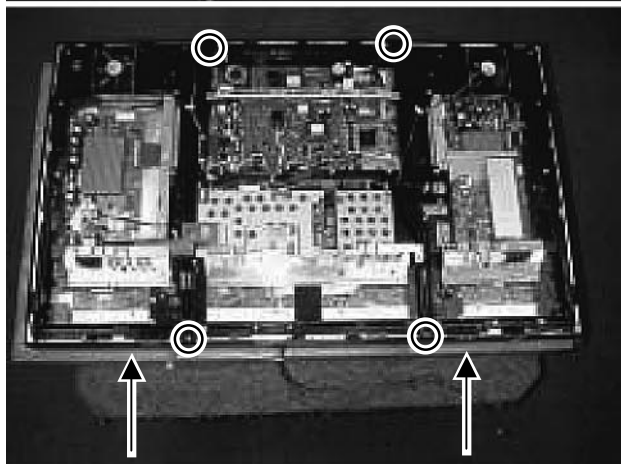
3) Remove the 6 circled screws. (Two screws indicated by the arrows are inside stand cover)

4) Remove the Base Frame from the Front Case together with panel and PCBs.

∗ View of removal of the Base Frame from the Front Case.
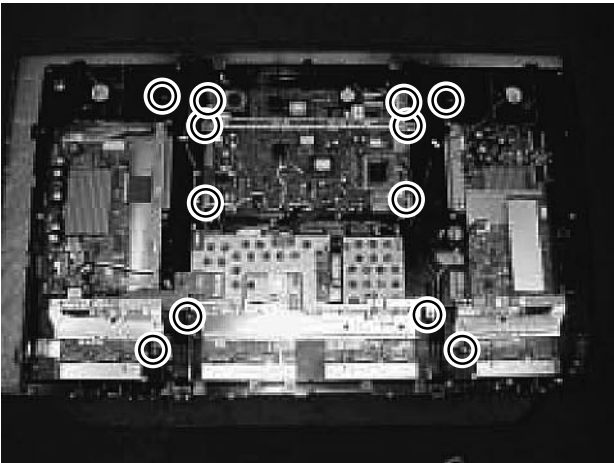
∗ View after the Front Case Panel Unit and PCBs removed.

5) Remove the 12 circled screws.
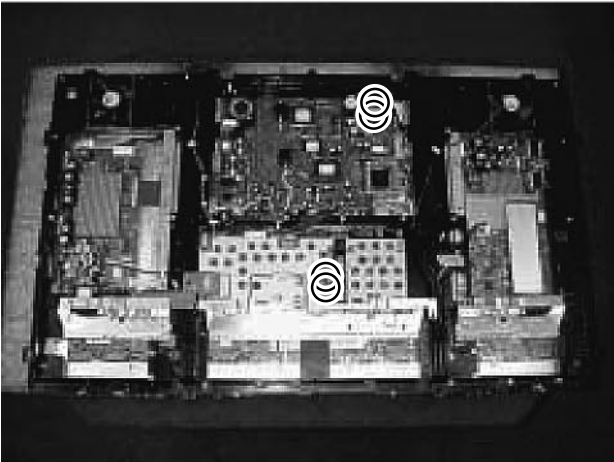
6) Disconnect the circled connector and Base Frame together with the other parts.
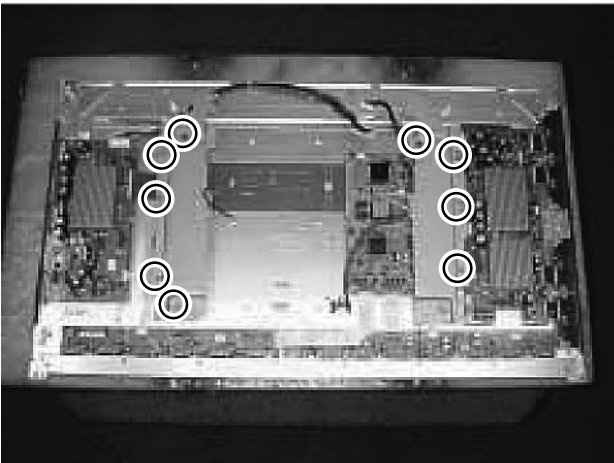
7) Remove the 9 circled screws and Shield Frame.

8) Disconnect the circled connector.

∗ View after only the PDP Unit removed.

∗ Replace the parts which are already mounted
correctly, when the PDP Unit is replaced.

6. Removing the Bezel Front
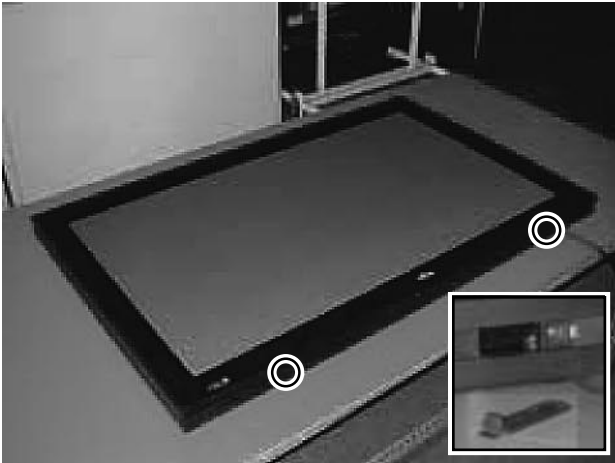
1) Remove the 2 circled Cover Stands and remove the screw in the holes.

2) Lift the bottom of the Bezel Front.

3) Lift the Bezel Front upward to remove it.
   (The top of the Bezel Front is hooked.)

∗ View after Bezel Front removed.

7. Removing the Optical Filter
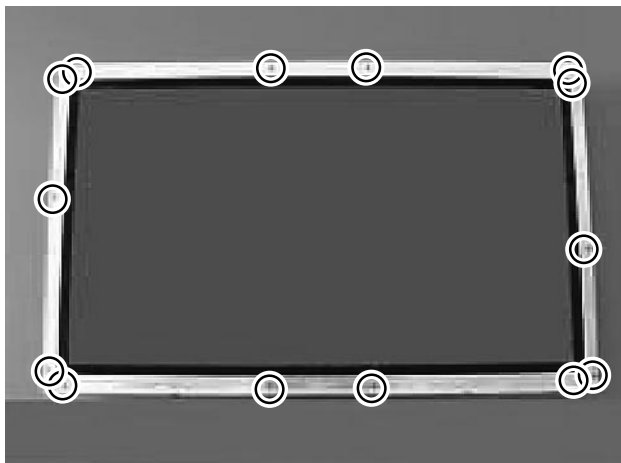
1) Remove the Bezel Front.

2) Remove the 14 screws on the Filter Holders at each side.
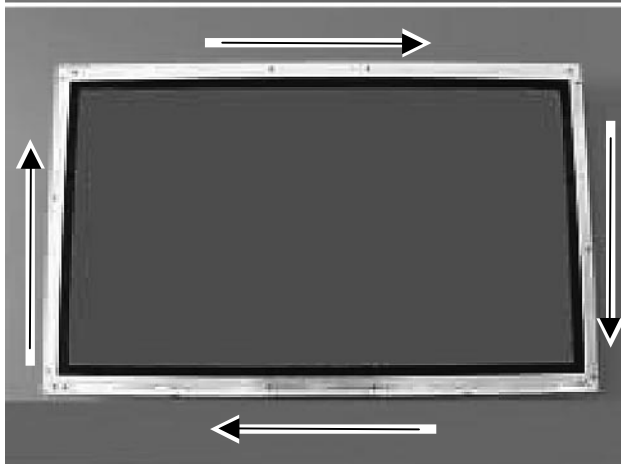
3) Remove by sliding the Filter Holder in the arrow directions.

4) Remove the Optical Filter.

8. Removing the Key Switch PCB
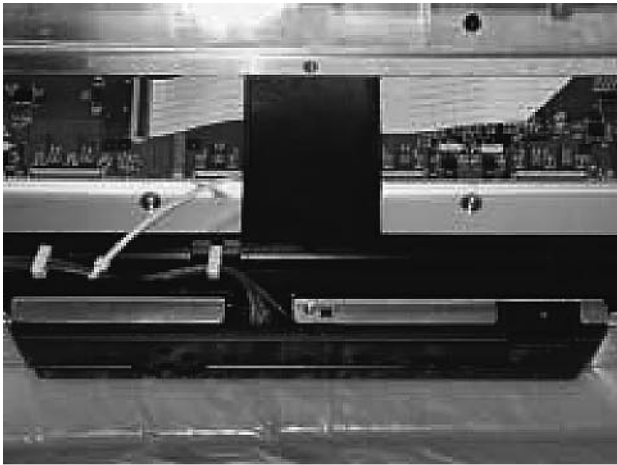
1) Remove the Bezel Front.

2) Remove the Rear Case.
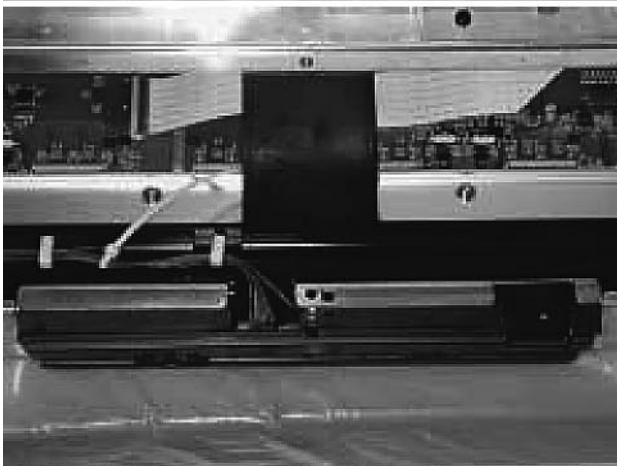
3) Remove by tilting the key switch part forward.
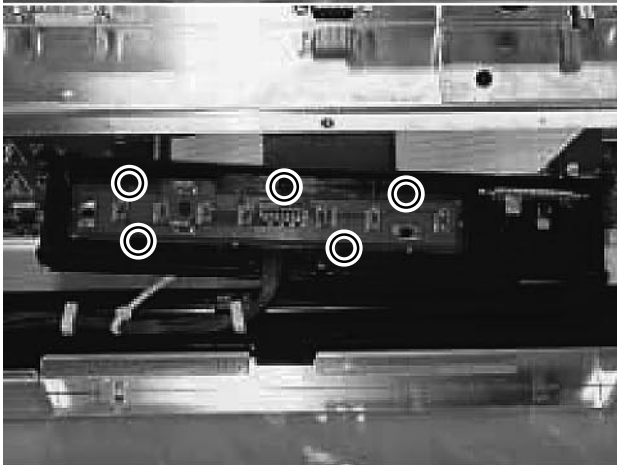
4) Unhook the hook holding the Key Switch PCB.
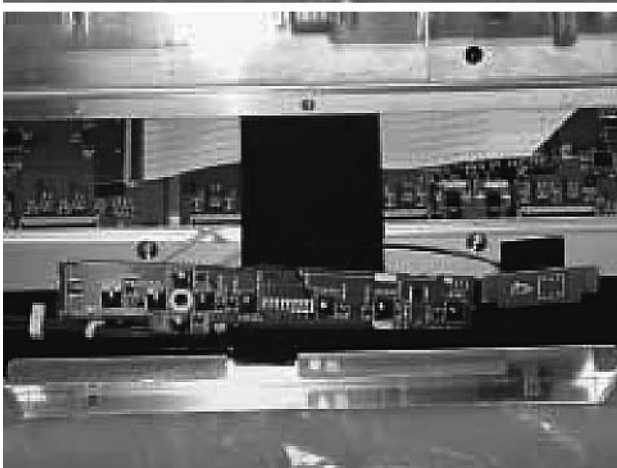
3) Remove the Key Switch PCB.

9. Removing the Video PCB
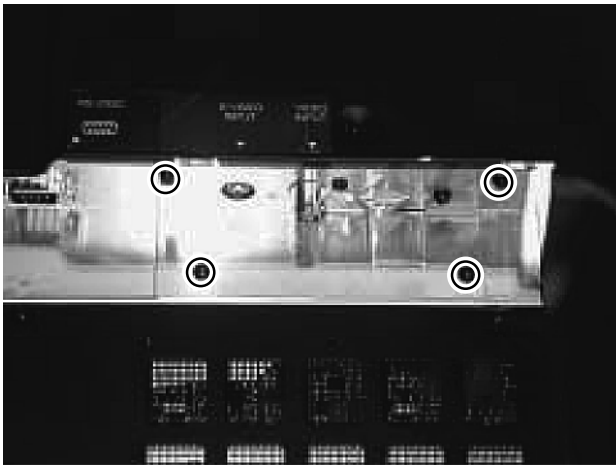
*The Video PCB can be removed without moving the Rear Case.

1) Remove the 4 circled screws.
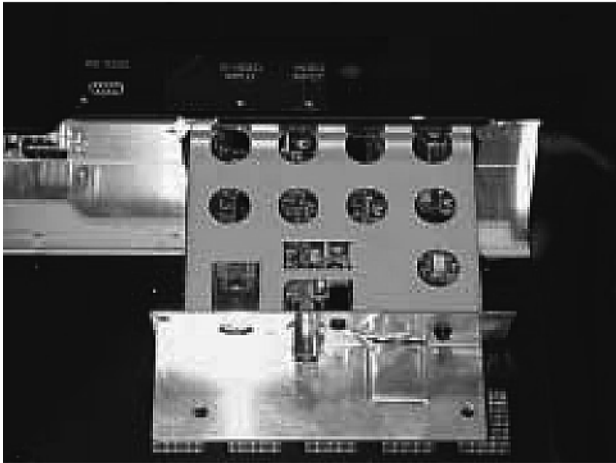
2) Pull out the Video PCB Unit from the Plasmavision.
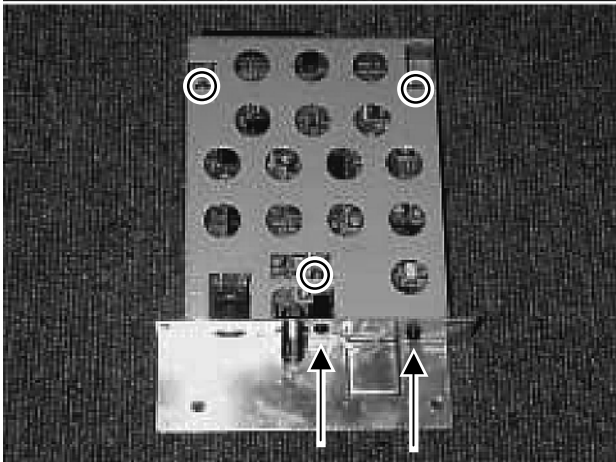
3) Remove 5 screws from the Video PCB Unit.

Note:
    Three kinds of screws are used on this Video Unit.
    Be careful not to make any mistakes when reinstalling.
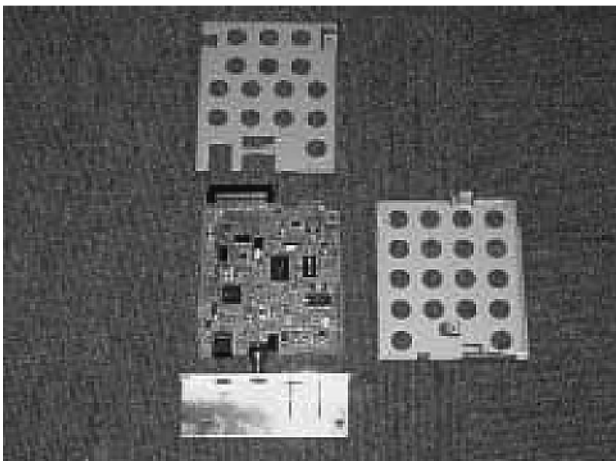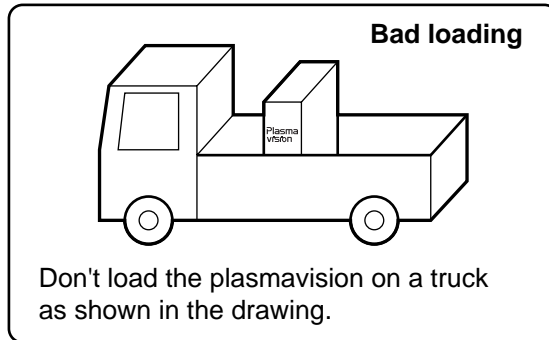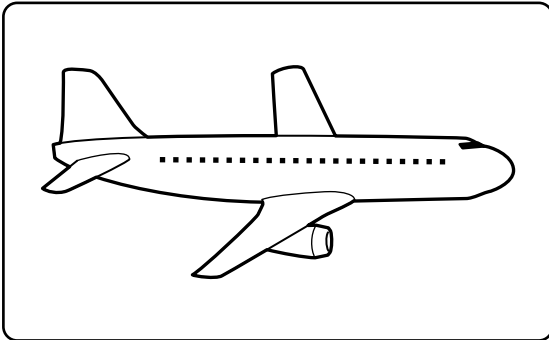
4) Remove the Video PCB.

PARTS LIST

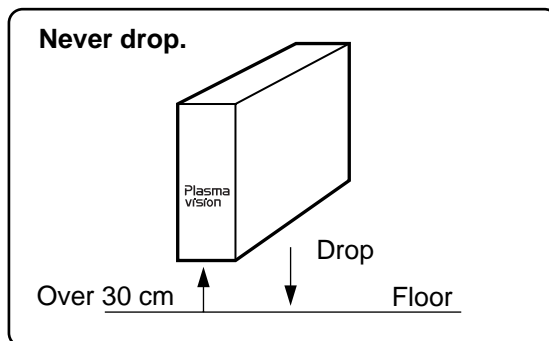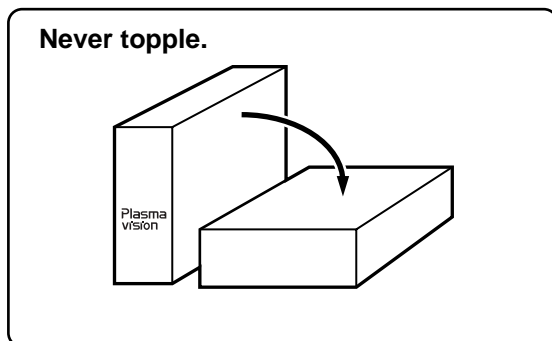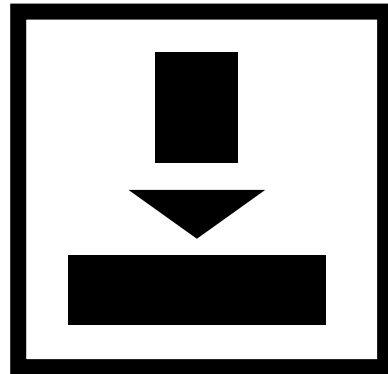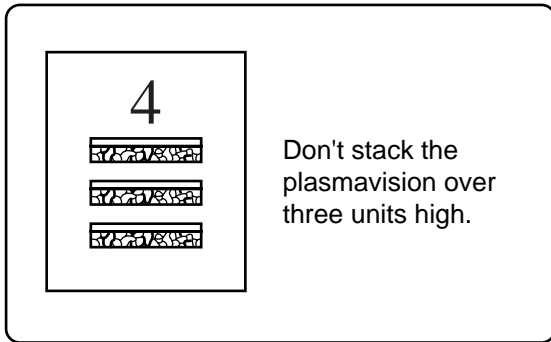| Ref. No.	Description	PDS4233W-H	PDS4233E-H	PDS4233W-S	PDS4233E-S	PDS4234W-S	PDS4234E-S
Cabinet	Case Front	8111430006	⇐	⇐	⇐	⇐	⇐
	Case Rear	8112684002	⇐	⇐	⇐	⇐	⇐
	Bazel Front	8112000000	⇐	8112905008	⇐	8112966009	⇐
	Cover Stand	8108298008	⇐	8112807005	⇐	----------------	----------------
	Cover Stand L	----------------	----------------	----------------	----------------	8108360002	⇐
	Cover Stand R	----------------	----------------	----------------	----------------	8108585009	⇐
	Holder Filter (L/R)	8110619006	⇐	⇐	⇐	⇐	⇐
	Holder Filter (T/B)	8110614001	⇐	⇐	⇐	⇐	⇐
	Holder Key Switch	8108067000	⇐	8112806008	⇐	8108066003	⇐
Electric	Fan Motor DO4R-12TM	8900291009	⇐	⇐	⇐	⇐	⇐
	Fan Motor DO9A-12PH	8900233009	⇐	⇐	⇐	⇐	⇐
	Optical Filter	8112396004	⇐	⇐	⇐	8112397001	⇐
	Audio PCB Assy	8112577007	⇐	⇐	⇐	⇐	⇐
	Connection PCB Assy	8112583008	⇐	⇐	⇐	⇐	⇐
	I/O PCB Assy	8112585002	⇐	⇐	⇐	⇐	⇐
	Key Switch PCB Assy	8112581004	⇐	⇐	⇐	⇐	⇐
	LED/PHOTO PCB Assy	8112579001	⇐	⇐	⇐	⇐	⇐
	Main Digital PCB Assy	8112997003	⇐	⇐	⇐	⇐	⇐
	Video PCB Assy	8112575003	⇐	⇐	⇐	⇐	⇐
	Main Power PCB Assy	8112608008	⇐	⇐	⇐	⇐	⇐
	PDP Unit	8112595001	⇐	⇐	⇐	⇐	⇐
	Noise Filter	0400222729	⇐	⇐	⇐	⇐	⇐
	Power Cord UL.CSA	8111725003	----------------	8111725003	----------------	8111725003	----------------
	VDE	----------------	8111726000	----------------	8111726000	----------------	8111726000
	Remote Control Unit	8108442005	⇐	8110867001	⇐	⇐	⇐
Packing	Carton Top	8113152005	⇐	⇐	⇐	⇐	⇐
	Carton Bottom	8108658000	⇐	⇐	⇐	⇐	⇐
	Packing Joint-D	8108655009	⇐	⇐	⇐	⇐	⇐
	Packing Pad-Top	8111629004	⇐	⇐	⇐	⇐	⇐
	Packing Pad-Bottom	8111630000	⇐	⇐	⇐	⇐	⇐

⇐ : Same as left

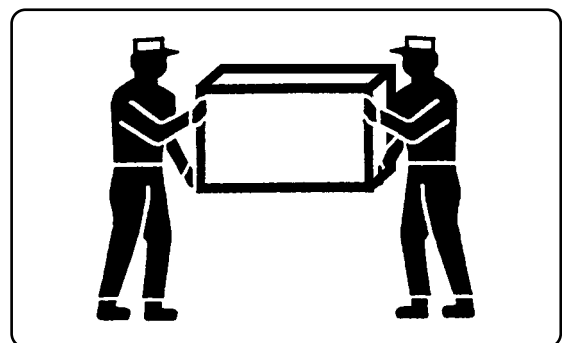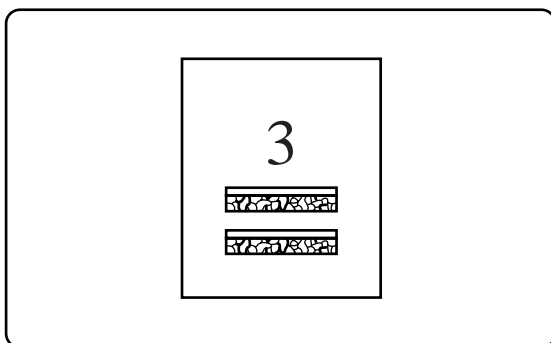# TRANSPORTATION AND HANDLING RESTRICTIONS

Transportation

Bad loading

Don't load the plasmavision on a truck as shown in the drawing.

Handling

Never topple.

Plasma vision

Never drop.

Plasma vision

Over 30 cm

Drop

Floor

Don't hold the surface of the optical filter.

Don't stack the plasmavision over three units high.
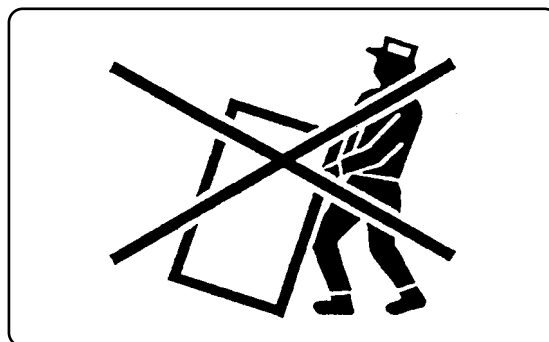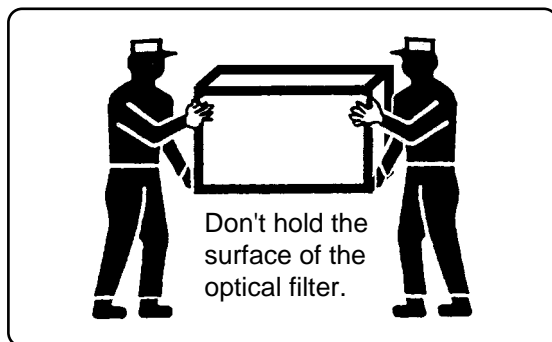
Example of good transportation and handling

Good loading

Load the plasmavision as shown above.

MEMO

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